

**VOLUME I
PERFORMANCE FLIGHT TESTING**

**APPENDIX D
CHARTS OF INTEREST FOR THE
USAF TEST PILOT SCHOOL**

1962

DTIC QUALITY INSPECTED 4

19970116 070

**USAF TEST PILOT SCHOOL
EDWARDS AFB, CA**

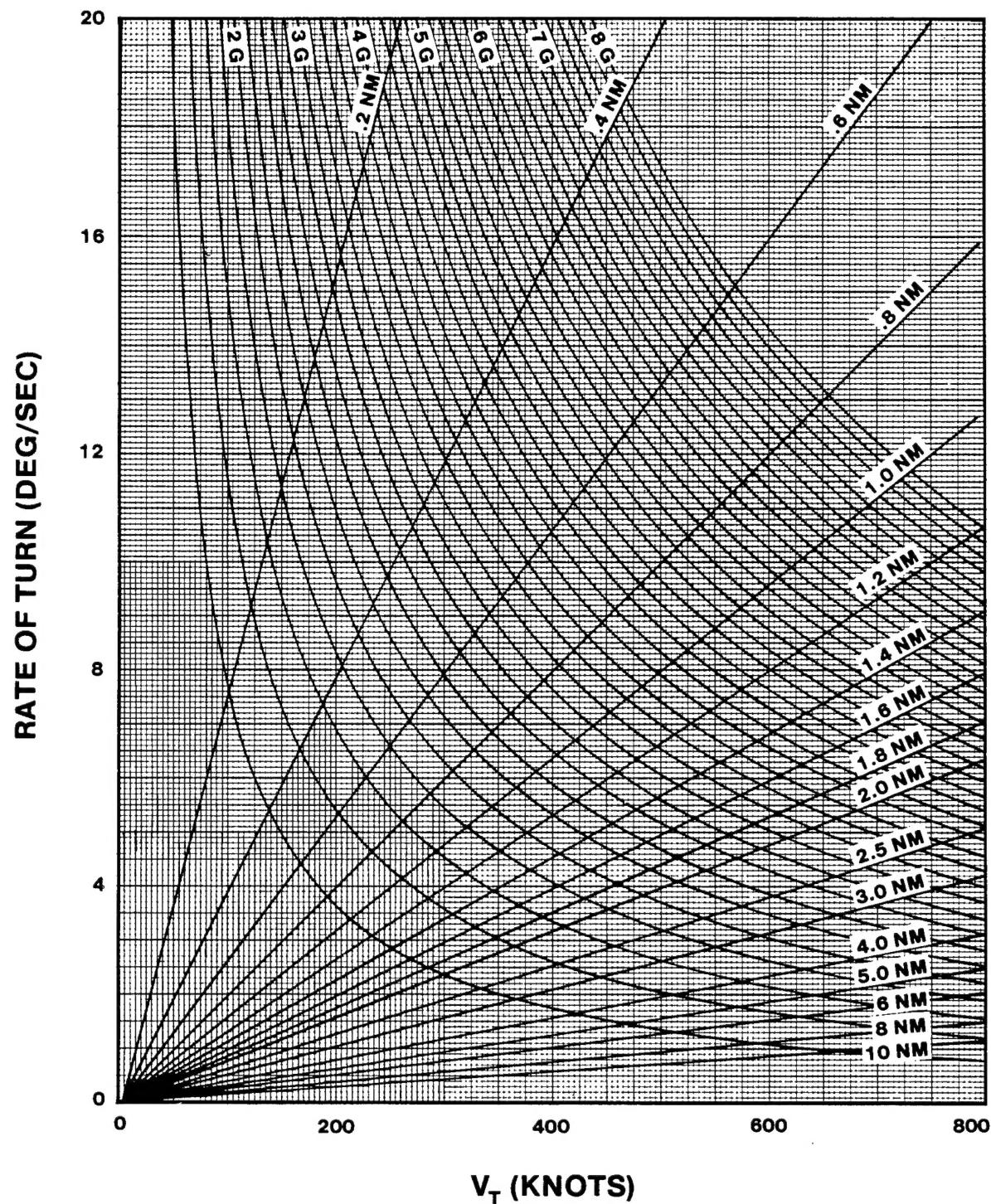
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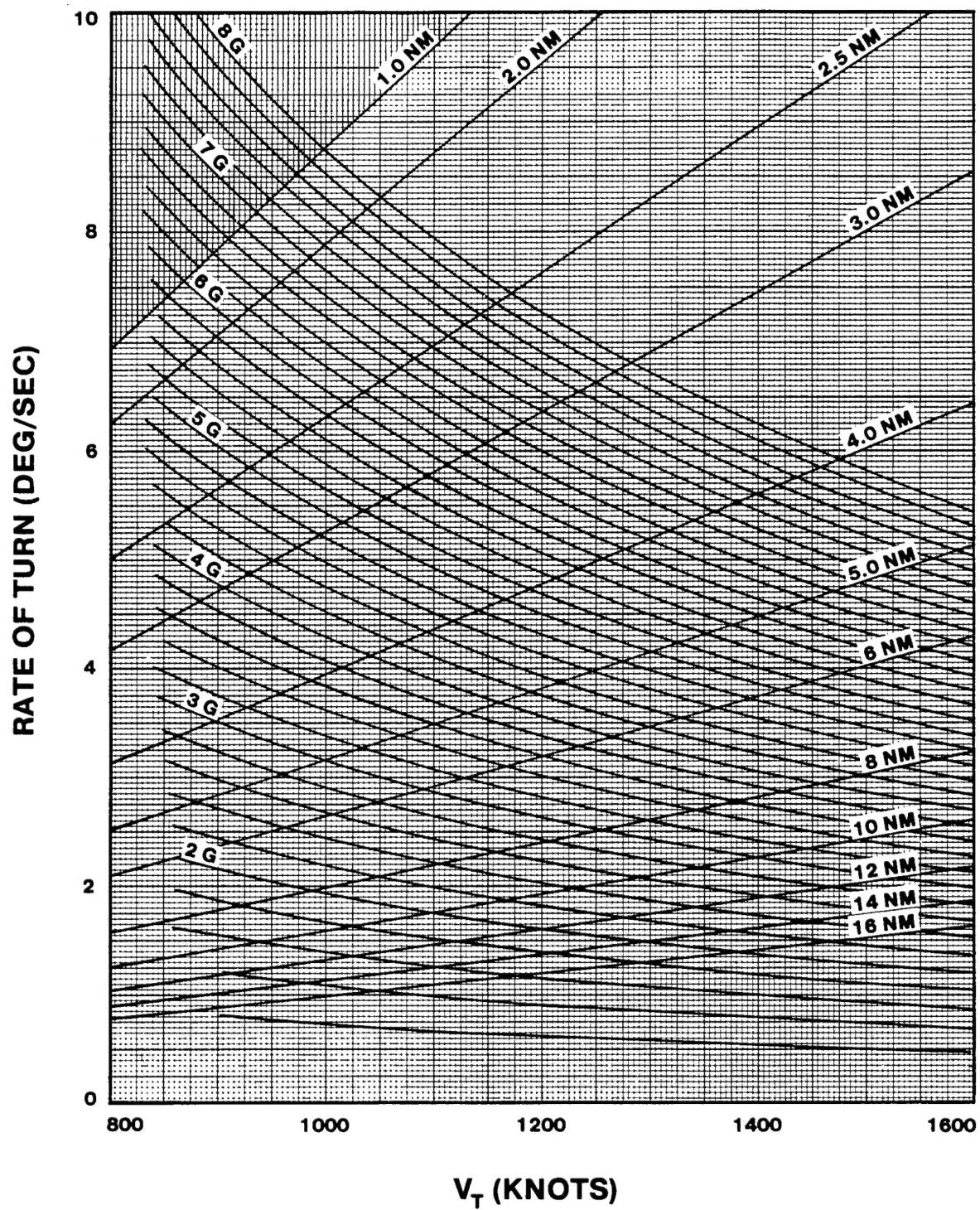
APPENDIX D
CHARTS OF INTEREST FOR THE
USAF TEXT PILOT SCHOOL

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D-1 - D-2	Rate of Turn vs V_{True}
D-3	Ram Pressure Ratio vs Mach
D-4	Delta Rate of Climb Factor for Turbojets ($.70 < n_r < 1.0$)
D-5 - D-6	Test Rate of Climb Acceleration Correction
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D-13	T-38A Position Error Chart (Flight Test Nose Boom)
D-14	RF-4C Position Error Chart (Compensated Nose Boom)

RATE OF TURN VS V_{TRUE}



RATE OF TURN VS V_{TRUE}

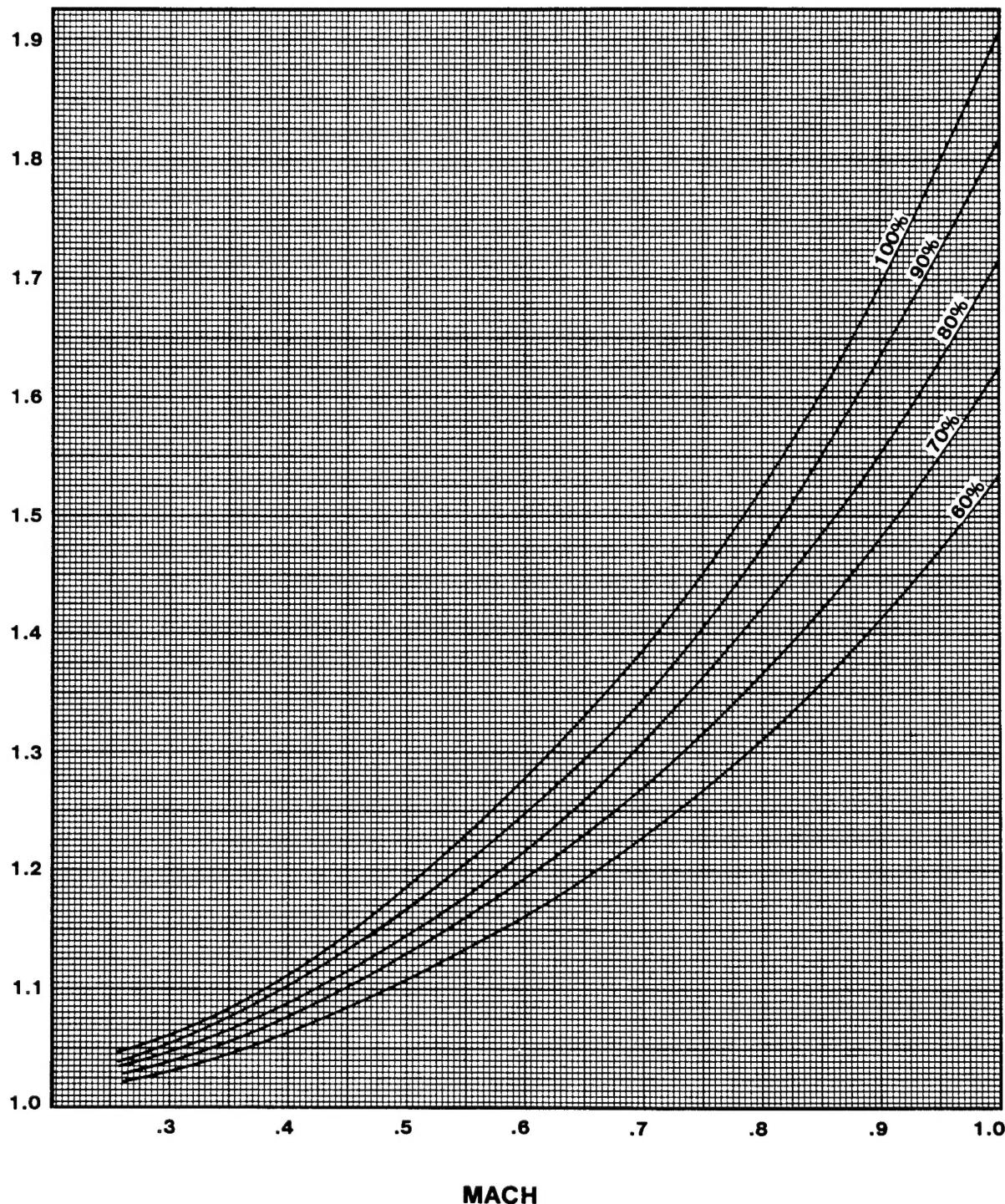


RAM PRESSURE RATIO VS MACH

$$P_o/P_a = [1 + 0.2 (M)^2]^{3.5}$$

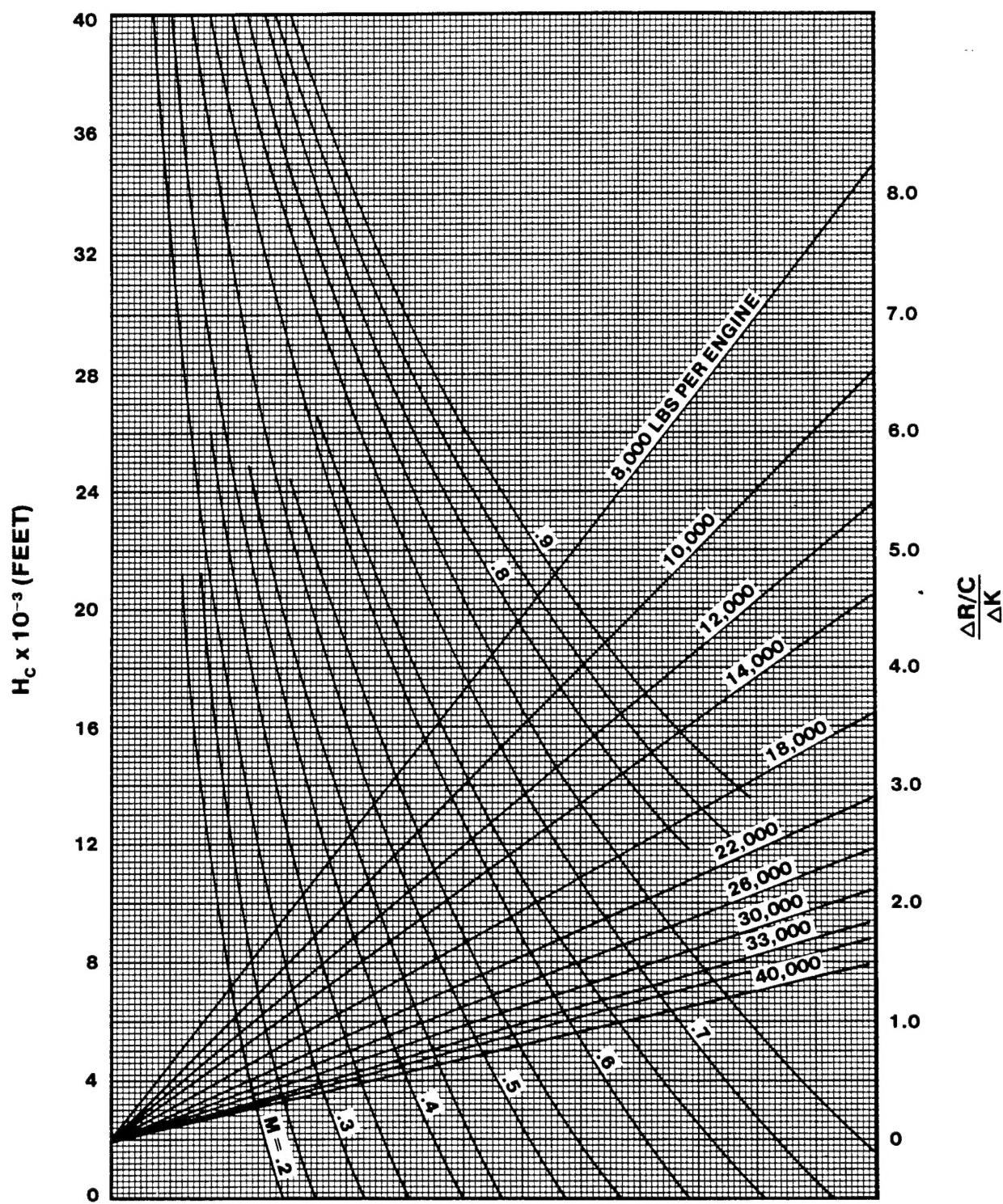
$$\% \text{ RAM} = \frac{P_{o\text{ACT}} - P_a}{P_{o\text{THEO}} - P_a}$$

$P_{\text{RAM}}/P_{\text{AMB}} - P_t/P_a - P_o/P_a$

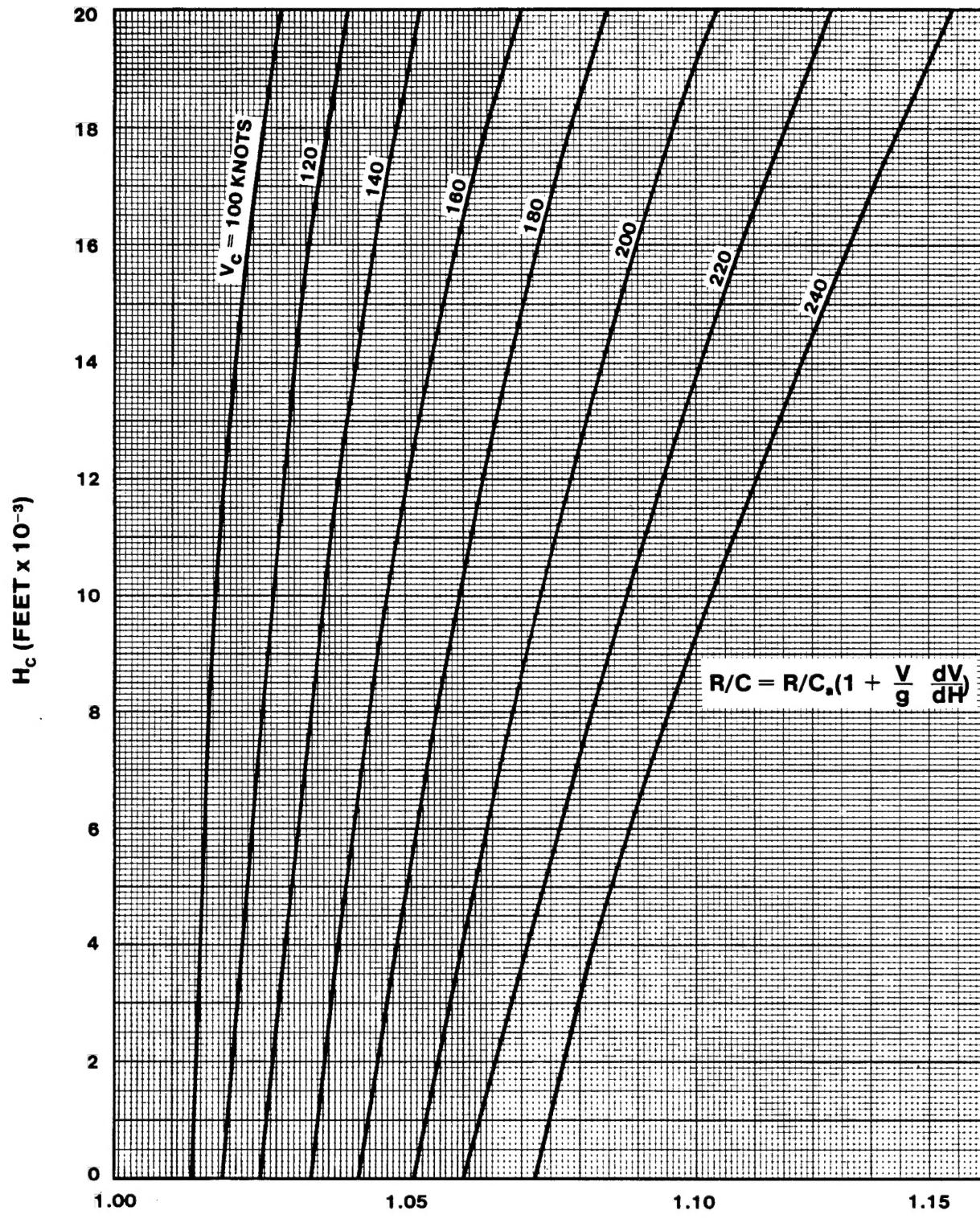


MACH

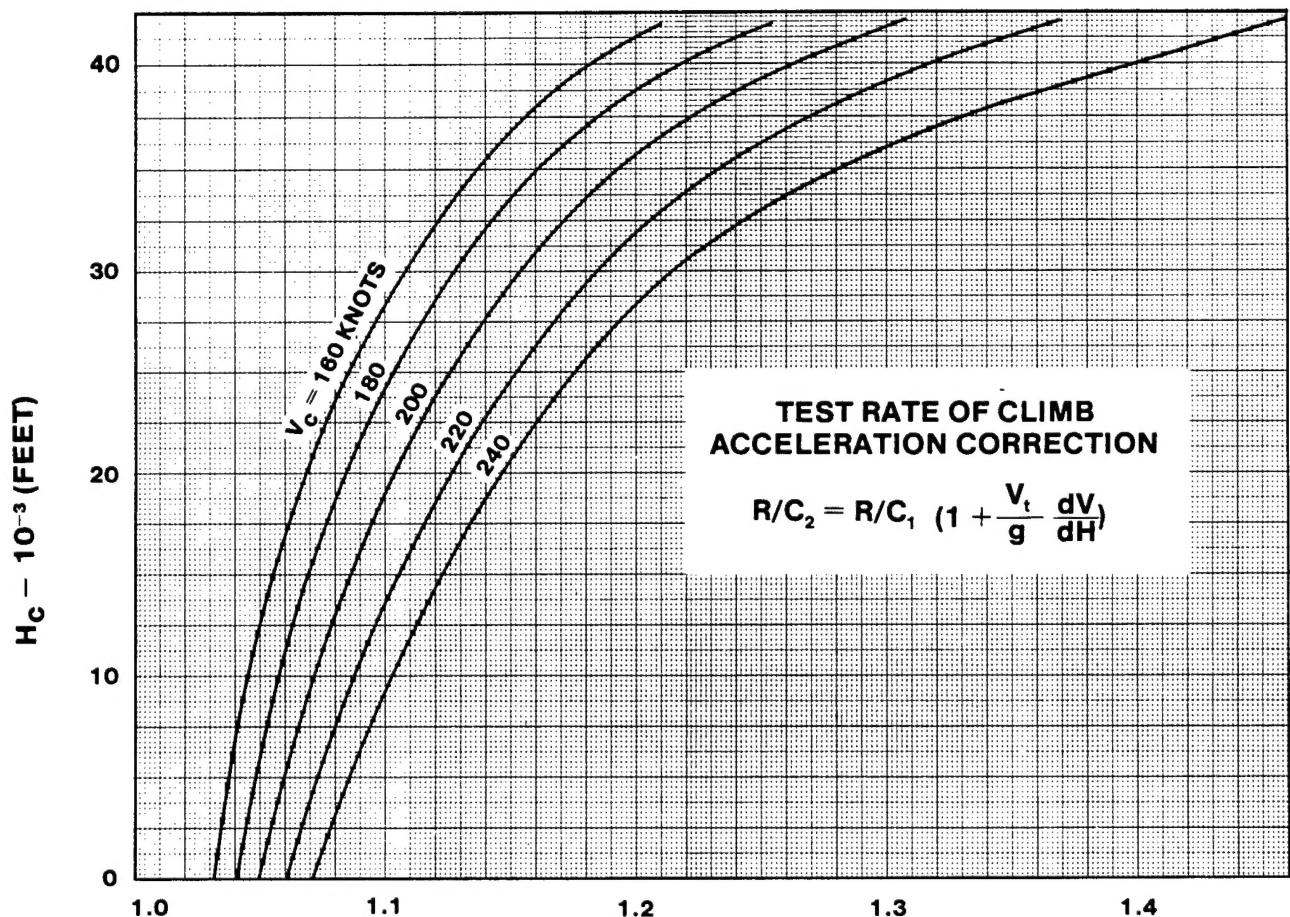
**DELTA RATE OF CLIMB FACTOR FOR
ALL TURBO-JET ENGINES WITH
RAM EFFICIENCIES OF .70 TO 1.0**



TEST RATE OF CLIMB ACCELERATION CORRECTION

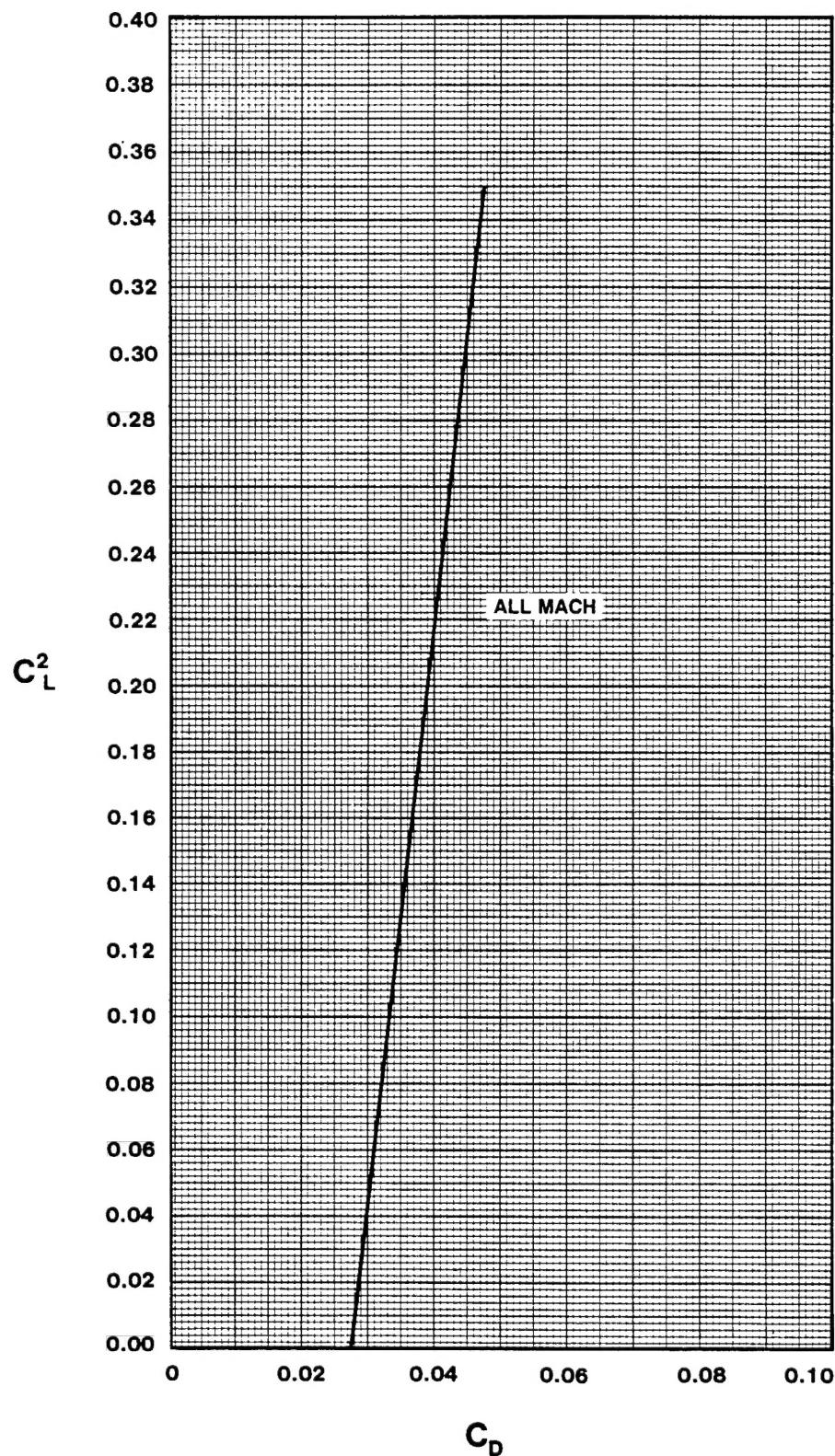


$$(1 + \frac{V}{g} \frac{dV}{dH})$$

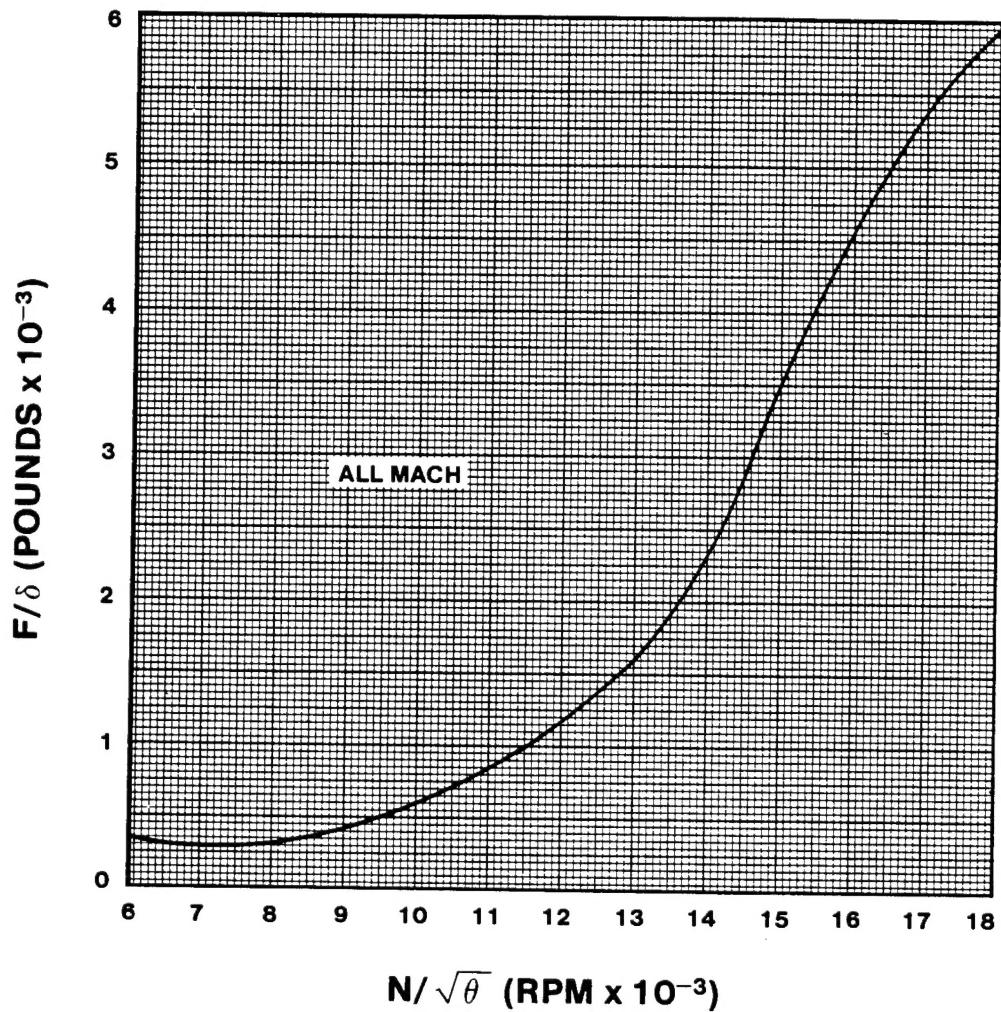


$$\left(1 + \frac{V_t}{g} \frac{dV}{dH}\right)$$

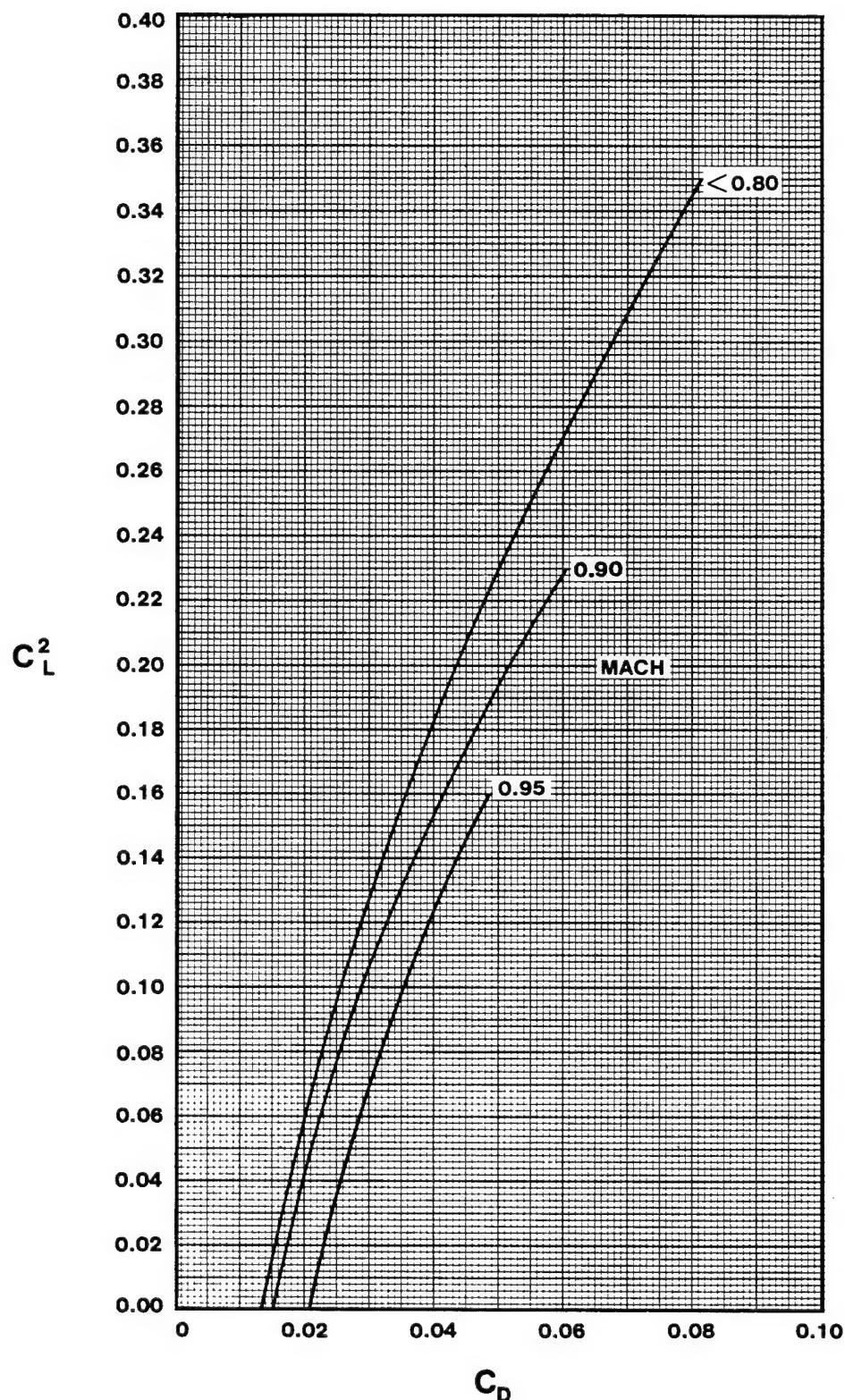
**A-37B DRAG POLAR
TWO J85-17A ENGINES
CRUISE CONFIGURATION**



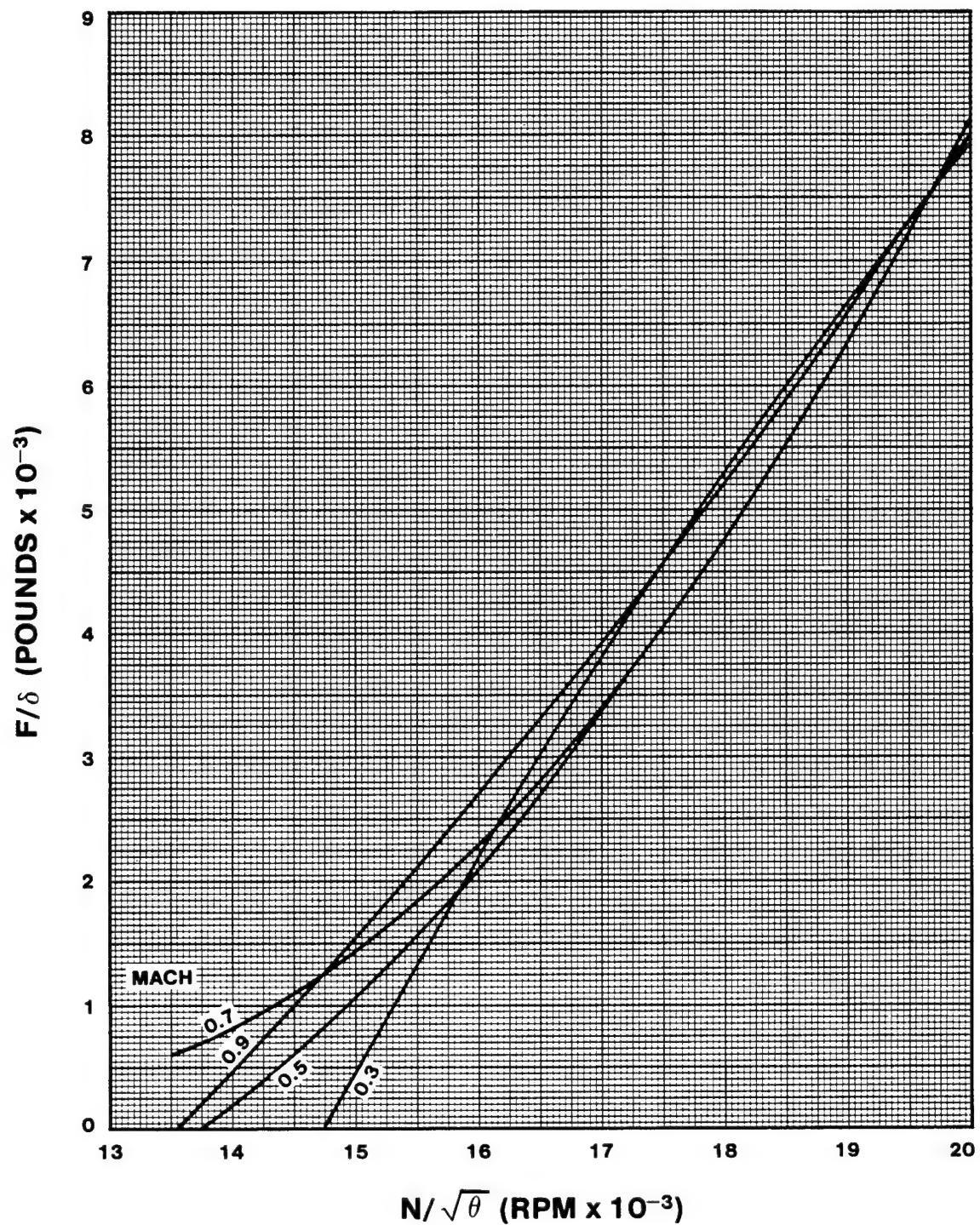
A-37B THRUST CURVE TWO J85-17A ENGINES



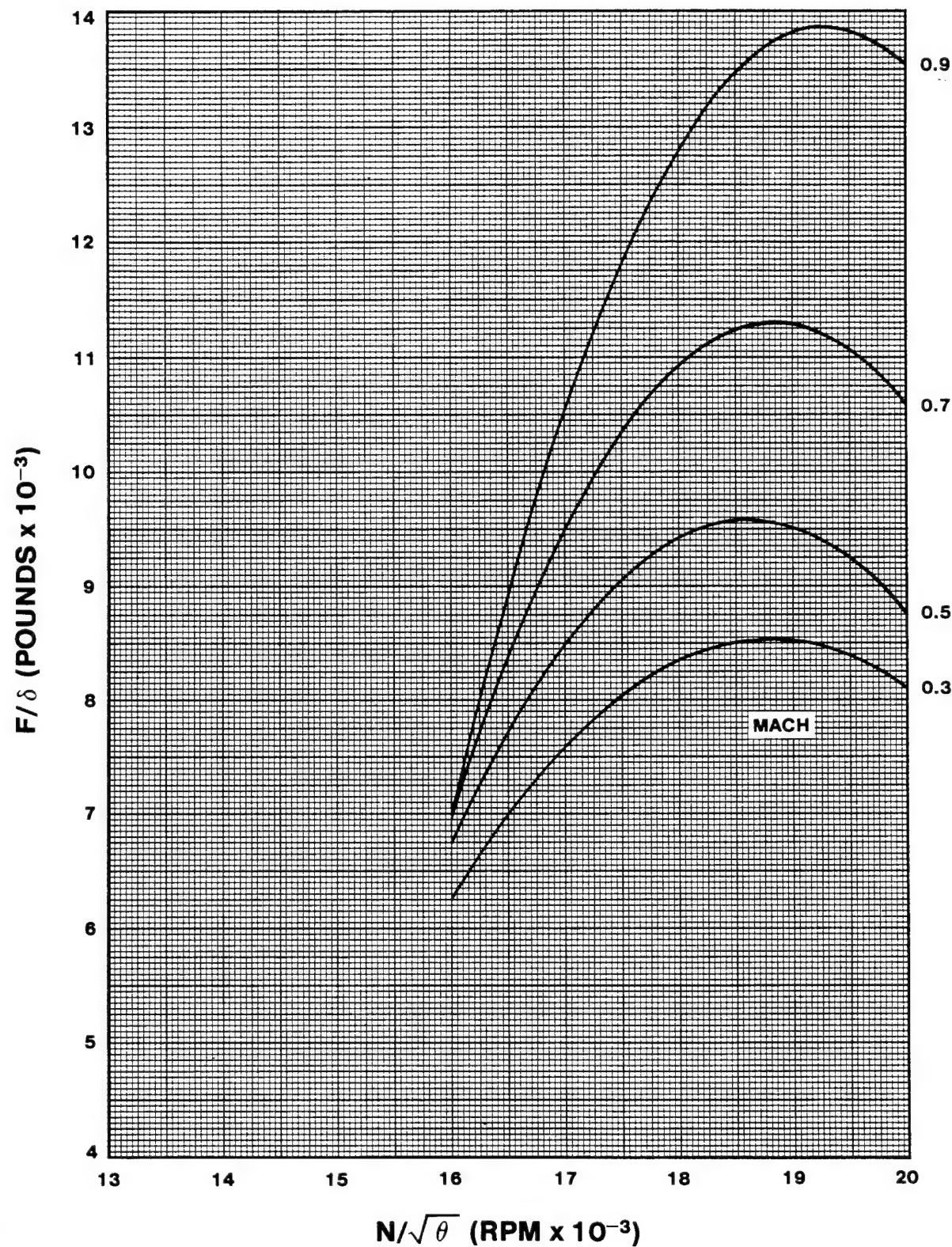
**T-38A DRAG POLAR
TWO J85-GE-5A ENGINES
CRUISE CONFIGURATION**



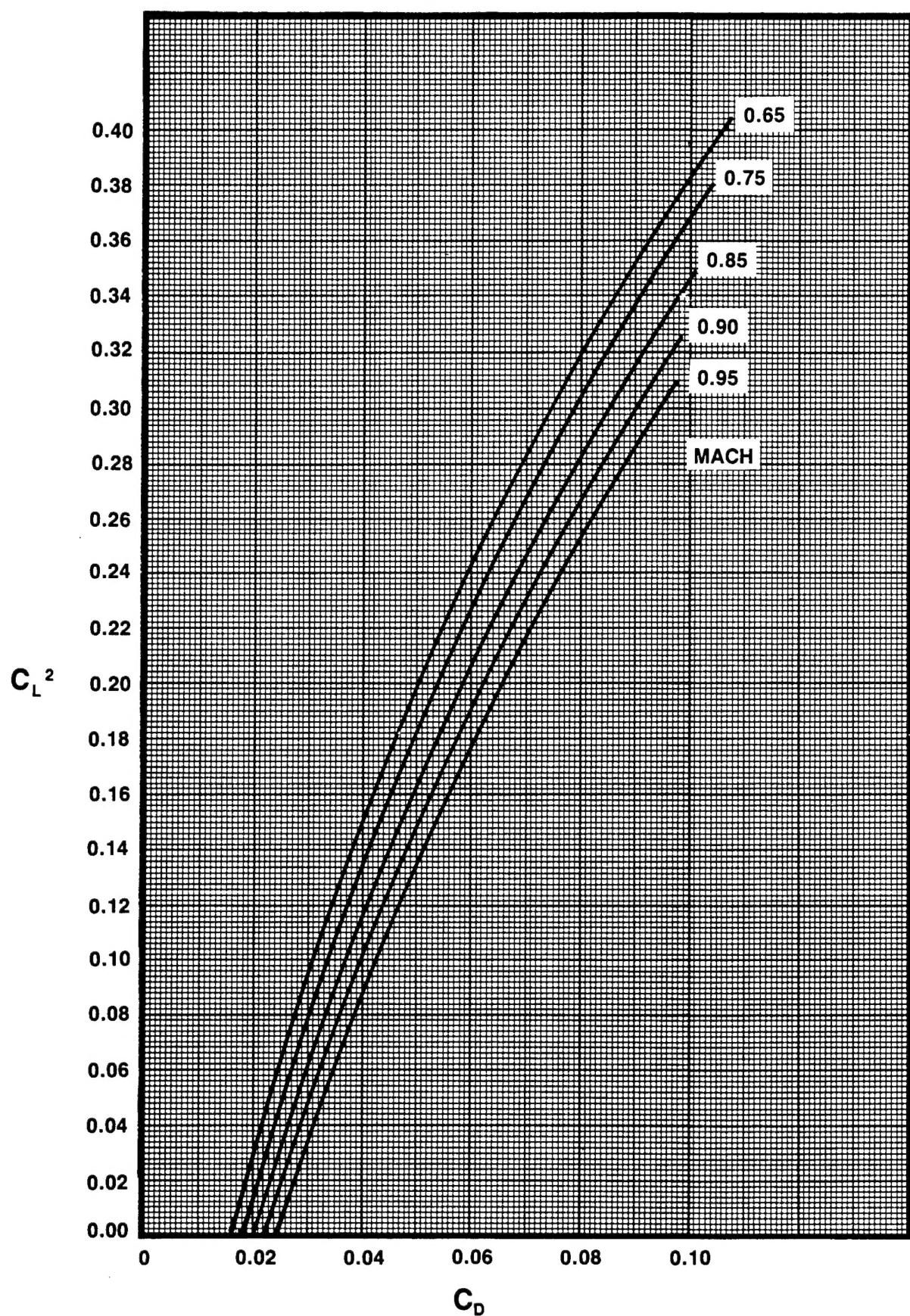
**T-38A THRUST CURVE
WITHOUT AFTERBURNER
TWO J85-GE-5A ENGINES**



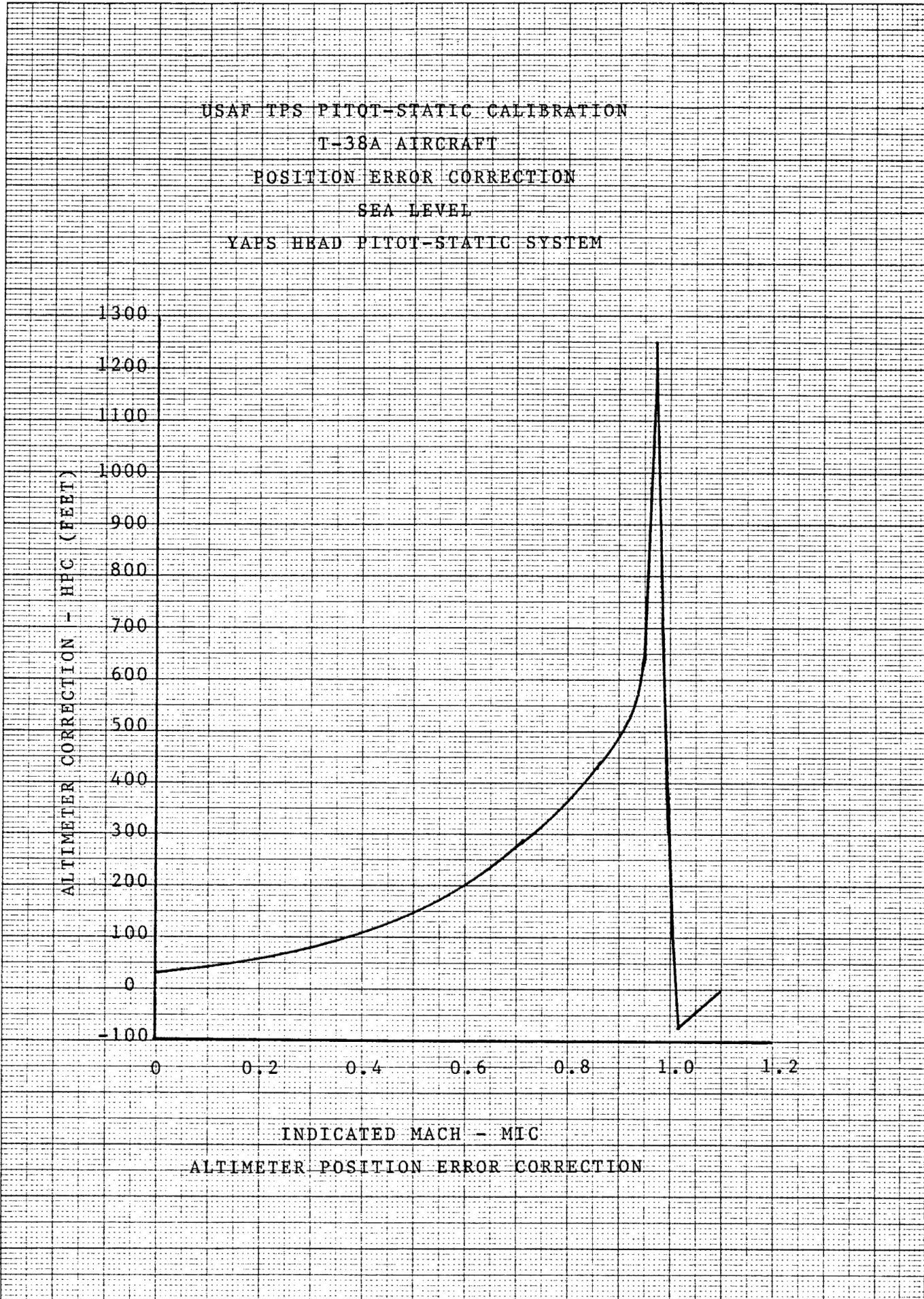
**T-38A THRUST CURVE
WITH AFTERBURNER
TWO J85-GE-5A ENGINES**



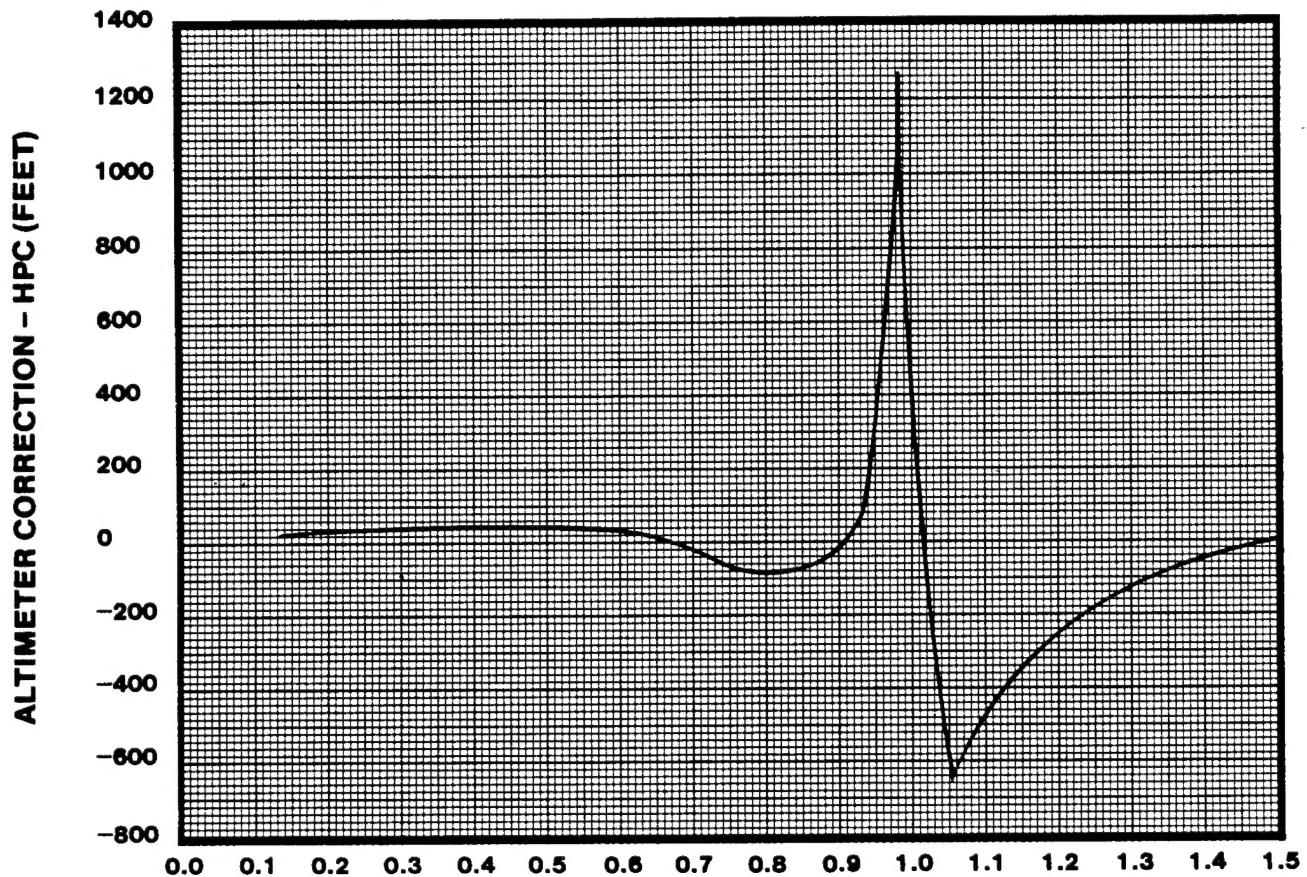
RF-4C DRAG POLAR PLOT



25100



**USAF TPS PITOT-STATIC CALIBRATION
RF-4C AIRCRAFT
COCKPIT AND MAGTAPE
STANDARD PITOT-STATIC SYSTEM**



INDICATED MACH - MIC
ALTIMETER POSITION ERROR CORRECTION

RF-4C THRUST CURVES

WITHOUT AFTERBURNER

TWO J79-GE-15 ENGINES

